Plug-N-Play Wireless XCVR

New! *Low Cost* PLUG-N-PLAY "DIRECT TO P.C."

WIRELESS (R.F.) & LICENSELESS TRANSCEIVER

Model TR300

OTEK's new ***TR300*** comes ready to Plug-N-Play! Complete with power supply, P.C. software, antenna and simple instructions, it's so simple that we guarantee your set up in 10 minutes or less for the first node (less for others) or return them for full refund! Just stick it to any surface with the supplied velcro.

Applications: Any wireless communication from PC-PC, PC-DCS, PC-SCADA, PC-Instruments, etc., from Hazardous (I.S. Pending) to safe areas, temporary or permanent wiring replacement, etc. The ***TR300*** is so simple that it can even be installed by one person thanks to its Range Finder (Test) switch, all you'll need is your DB9M-DB9F cable (or just plug the ***TR300*** directly to your PC's DB9F com. port).

Master-Slaves: All units are identical and can talk-listen to any other unit. The built-in "Dip" switch, lets you program the units's address and communicate with specific addresses or "broadcast "to all of them. Up to 15 nodes (addresses) are available.

Auto-Transmission: You can command when to transmit (<E>) or the ***TR300*** will do it automatically when its register is full (32 characters), faster than your finger can!

Auto-Retransmission: Should the transmitting unit fail to receive the acknowledgment from the targeted receiver, it will retransmit the message(s) up to 7 times or will display the "Error" message on your screen.

Help: The PC software included (free) has a help menu to quickly help you change parameters and trouble shoot.

Dialog Screen: Tells you everything that is happening including "Low Battery" conditions.

Intrinsically Safe: Contact OTEK for Availability

IF YOU DON'T SEE IT, ASK FOR IT!

ACTUAL SIZE

Limited Lifetime Warrantee!

SPECIFICATIONS @25ºC:

R.F. Section:

Operating Frequency	916.5MHz
	±0.2MHz
Data Rate (R.F.)	OOK:19.2KB;
Max. Peak Transmit Power	1 mW
Receiver's Gain	100dB
Auto Transmission	32 Char.
Indoor/Outdoor Range	100/300 ft.

R.S. Section:

RS-232C	19.2Kbps
Characters	Any
Handshake	None Required
Settings	19200, 8N1

Overall Specs:

Voltage Input	120VAC with included
	Power Supply
Transmit Current @ 5VDC	20mA
Receive Current @ 5VDC	10mA
Operating Temperature	0-60ºC
Storage Temperature	-20+70ºC
Size	1.75"x3.25x0.75"
Antenna	1/4 Wave 2" Long
Weight	2oz (56Gm)+P.S.

Ordering Information (Visa &MC Accepted)

Commercial Grade: **TR300:** ***$195*** (Need 2 Units Minimum)
Includes P.S. Antenna and PC Software

Intrinsically Safe: **IS-TR300:** ***$395*** ***(No Power Supply)***
Includes Certificate, Antenna & P.C. Software

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Simple Instructions for Models:

TR200, TR300 & TR400

Wireless (R.F.) to Wired (R.S.) Transceivers

A) Required Items:

1. PC with MS-Dos 5.0 or Higher (Windows Soon)
2. Serial Cable DB9F to DB9M
3. Power Source for TR200 & TR400 (Included with TR300)
4. Minimum of Two(2) Transceivers

1. Install the PC software (Included) on your hard disk via the "a" drive (3½"):

a) CD\<E>;
b) MD otektr <E>;
c) Copy A:*.* C:\otektr<E> (above step on each terminal).

The "TR" series has been set for "8N1" (8bit, no parity, 1 stop bit) and 19,200 baud.

Warning: Only connect pins 2 (TXD), 3(RXD) and 5 (GND) to your PC!

2. Prepare your "Master" "TR", connect serial cable and set address to "1" and apply power.

3. Type C:\otektr<E>

a) Your PC will show the"Dialog" screen (see Fig.1)
b) Press "Alt+H" (Help Menu) (see Fig.2) and familiarize yourself with the commands.
c) Press "Alt+A" to verify the connected unit's address, always reset after changing address.

Note: Do Not type any messages yet, if the other units are not connected.

4. Now repeat steps 1-3 on all nodes, but make sure to assign different address to each one. See table I (Address Code).

5. Now your are ready to test the Wireless links.

a) Locate the "Slave" on the preferred location and on the ***TR300 & TR400***, press the "Test" (range finder) switch momentarily, on the ***TR200*** pulse the test pin to 5 (Gnd). The unit will send a wireless test signal to the "Master" (add#1) and if within R.F. range will receive the "Received" acknowledgment blinking once (fast) its LED.
If OK, install the"TR" on its permanent location.
b) If NOT, move away from obstructions/interferences and repeat Step a.
c) Once Step 5 (test) is satisfied, you can begin the "Wireless" communication, either short message+<E> or automatically (32+ characters).

6. Broadcast Mode (Alt+B<E>): The message is sent to all units within RF range (no acknowledgment is required).

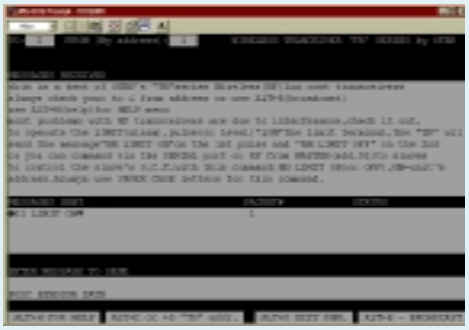
7. ***Alarm*** I/O (***TR200*** & ***TR400*** only): A TTL compatible negative pulse at Pin 11 of the connector (not DB9) will command the unit to transmit the message "***Alarm On NN***" (NN=units address) and turn"ON" its open collector transistor (OCT) at Pin 12, for as long as its input is "Low". In addition, any node (unit) can command the specific addressed unit to turn "ON" its OCT by typing the message "***Limit On***" <E> (check the "To" address before sending or use the Broadcast (Alt+B) to command all units to turn on their OCT), to reset type "***Limit Off***" <E>. The sending unit's own OCT will **NOT** be affected by this wireless command.

8. Your Comments Please! To:

support@otekcorp.com

Thank you!

DIALOG SCREEN



<KEY> HELP MENU

<DEL> Deletes Line.
<BACKSPACE> Deletes Character to left
<ENTER> At start of line sends last message.
<ALT>+<C> Clears screen
<ESC> Resets "SEND PACKET" Mode.
<ALT>+<S> Invokes set up program.
<ALT>+<X> Returns to system.
<ALT>+<I> Increments "TO" address.
<ALT>+<D> Decrements "TO" address
<ALT>+<B> Broadcast i.e. send message to all "TR" units.
<ALT>+<T> Test "TR" unit to perform selftest,Reset (Alt+R)
<ALT>+<R> Reset "TR" unit to start over (warm boot).
<ALT>+<A> Read "TR" address.
<F1> To send a full buffer
<CTRL>+<T> For Telemetry.
<CTRL>+<N> To change Node address.

PIN #	DB9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
10	6		X		X		X		X		X		X		X	
9	7			X	X			X	X			X	X			X
8	8					X	X	X	X					X	X	X
7	9									X	X	X	X	X	X	X
1	4	= TEST, PULSE TO GND (#5) TO TEST TRANSMISSION RANGE														
2	2	= TXD, CONNECT TO PC s RXD (PIN 3 ON PC s DB9 CONNECTOR)														
3	3	= RXD, CONNECT TO PC s TXD (PIN 2 ON PC s DB9 CONNECTOR)														
4	1	= +5VDC INPUT (OUTPUT IF 8-25VDC POWERED)														
5	5	= GROUND FOR POWER & SIGNAL (PIN 5 ON PC s DB9 CONNECTOR)														
6		= RESERVED FOR CUSTOM UNITS WITH 8-25VDC POWER INPUT														
11		= ALARM INPUT. PULSE TO GROUND TO ACTIVATE														
12		= ALARM OUTPUT. (30V / 20mA SINK MAX.)														

NOTES: 1. X = Switch ON or Pin Grounded For Selected Address
2. ALWAYS RESET UNIT AFTER PERFORMING AN ADDRESS CHANGE

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